



Going under ground

LINKED CHALLENGE

To make a wormery and observe worms' behaviour over time

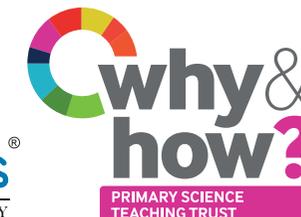
ACTIVITY OVERVIEW

Introduce the session outside, discussing various soil types, such as sandy, clay and loam. Discuss how soil might change, depending on materials such as leaves that rot into it and the role of worms. Ask children to collect dead leaves for their wormery. Leaders might like to collect worms ahead of the session but also spend time looking for worms in the session so children can find them in their natural habitats. Children, in groups, will make wormeries.

1. Carefully cut off the top of the bottle. (Leaders may decide to do this before the session in order to smooth the edges with a nail file.)
2. Fill the bottle with different layers of sand and soil. You need to create thicker layers of soil and thinner layers of sand.
3. Put a layer of dead leaves on top.
4. Pour a small amount of water into the bottle (approx. 30ml).
5. Put two or three earthworms in the top of the wormery.
6. Wrap a piece of paper around the bottle and tape this in place.
7. Add a small amount of water each day to keep the soil damp.
8. After 2 weeks, take the paper off and look at the results.

KEY FACTS/SCIENCE

Soil is a mixture of materials (minerals) that come from rocks, organic material (from living things such as leaves), liquids (such as water) and gases (such as air) and together, these materials support life. Worms mix everything up as they make their burrows and eat the soil. The mixing helps the soil in our gardens to stay healthy: it provides space for air and water to filter through; worms mix nutrients through the soil by pulling down dead leaves and other material to eat. This provides richer (more fertile) soils in which plants grow. There are a few theories as to why earthworms surface when it rains. Rain causes vibrations on the ground and alerts them to the wetter surface. It is easier for the worms to move on wet surfaces, so this is a good time to come up to look for food, a mate, or a new habitat.



RESOURCES

2l plastic bottle (plus nail file to smooth edges)	Worms (collected from school grounds)
Soil	Piece of dark coloured paper
Sand (ideally coloured)	Sticky tape
Leaves	Scissors
Water	

Health & Safety:

Ensure children wash hands thoroughly after handling worms and soils and that hands are kept out of mouths. Take care with sharp bottle edges.

QUESTIONS/FURTHER LEARNING

- Predict what will happen to the layers when we leave the experiment to run.
- Discuss why worms and insects are so important in our world.
- Talk about why we see more worms when it rains.

Online supporting video:

<https://tinyurl.com/y82puzcy>

